

## Nipple-Areola Complex Positioning During Subglandular Breast Augmentation in Management of Breast Ptosis

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### ABSTRACT

Proper positioning of the nipple-areola complex (NAC) during breast augmentation with mastopexy for management of breast ptosis remained difficult and has potential complications.

It is not advisable to try to correct an evident ptosis by placing a very large breast implant. This behavior often results in an undesirable breast size and the problem of ptosis is seldom corrected. Likewise one should not fall into the error of having planned mastopexy based on examination and measurements and then decided not to do it after placing the implant.

For patients with grade III breast ptosis, mastopexy is generally required in addition to augmentation whether the technique used is periareolar, vertical scar or even inverted T-shaped scar mastopexy. Some patients with grade II breast ptosis can benefit from breast augmentation without mastopexy with a high rate of patient satisfaction, although in such patients elevation of the NAC to its proper site is ideal.

Thirty patients with different grades of ptosis underwent augmentation mammoplasty with or without lifting of (NAC) using different techniques according to the grade of ptosis.

The results were good with only three cases with complications (one case with hematoma and one case with superficial wound infection which was managed conservatively, and one case with bottoming out of the augmented breasts with vertical scar mastopexy which we believe that the skin was excess and inverted T-shaped scar should have been performed from the start), the overall patient satisfaction rate was 90%. The stability of the results depends mainly on the measurements and perfecting the properly chosen surgical technique in each grade of ptosis.

### INTRODUCTION

The mammary gland forms one of the most attractive areas of the female anatomy. A beautiful, harmonious gland is synonymous with sensuality.

#### Abbreviations:

NAC = Nipple-areola complex.

SSN = Supra sternal notch.

IMF = Inframammary fold or crease.

Surgical procedures for improving breast shape and size are multiple and varied. Primarily because of its physiologic function in lactation, the mammary gland can undergo important changes, especially if there have been multiple pregnancies and modifications in the gland's size have been significant. This means that after pregnancy and lactation, the gland may exhibit two principal alterations: Atrophy and ptosis. The presence of both pathologies in a single patient is a common situation. When a patient is faced with this situation, it is necessary to correct both problems simultaneously. Furthermore, there is controversy about combining augmentation and mastopexy in the same surgical procedure [1].

As the young woman's breast spans the 2<sup>nd</sup> to the 6<sup>th</sup> ribs, with NAC located above the IMF and centralized over the breast mount. The sternal notch to nipple distance forms an equilateral triangle, each limb of which is 17-21cm in length. The IMF to nipple distance is 7-8cm. The nipple projects at the level of 4<sup>th</sup> intercostals space. With ptosis the distance between nipple and clavicle increases progressively whereas the distance between the nipple and IMF changes a little. The nipple-areola is the aesthetic, functional, and sensory focus of the breast. Its enhanced blood supply and collateral vascular and nervous network lead to an anatomic structure that is very resilient during augmentation or reduction procedures. The size of the areola which is between 40-45mm in diameter [2].

The pathophysiology of breast ptosis relates to elongation of the connective tissue reticular network by either stretching, atrophy, loss of elasticity or fibrolipomatous changes. The aetiologic factors for ptosis include gravitational forces, glandular factors, hormonal regression (postpartum or menopausal), weight loss or gain (more than 25Kg), dermatochalasis and breast reduction [2].

Since the original descriptions by Gonzales-Ulloa in 1960 and Regnault in 1966, breast augmentation in combination with mastopexy has remained a difficult and often polarizing topic in plastic surgery, not only because of its results but also because of its potential complications [3].

Excellent results can be achieved consistently by augmenting the nonptotic breast using the standard approaches, including inframammary, periareolar, and transaxillary. Augmentation of the ptotic breast presents a greater challenge. For patients with grade III ptosis, mastopexy is generally required in addition to augmentation. The additional scarring associated with lifting techniques is justified to achieve a good breast appearance and is accepted by patients with this aesthetic problem [4].

Patients with grade II breast ptosis also benefit from augmentation mammoplasty alone. However, the final aesthetic results can be compromised because the nipple-areola complex often appears low, and the upper pole fullness often appears excessive. Generally these aesthetic criticisms are not severe enough to warrant the additional scarring of a mastopexy. Overall patient satisfaction still remains extremely high. Moreover the correction of the NAC position is possible and will be asked for by many patients regardless the additional scarring [4].

The blood supply of NAC is related to the blood flow in the breast parenchyma as well as the superficial periareolar vascular plexus. When there is intact breast parenchyma there is good blood flow to NAC. Also there is rich dermal and subdermal plexus that surrounds the NAC and supplies the necessary blood supply to keep its viability even after reduction mammoplasty or subcutaneous mastectomy [5].

The preferred position of the implant in cases of ptosis is subglandular as it can provide upper pole fullness and definition to the inframammary crease. If the implant is placed in a submuscular position the tight lower subpectoral pocket can restrict proper descent of the implant and breast parenchyma may rotate over it giving the double-bubble deformity [5].

#### *Aim of the work:*

Is to study the different modalities of mastopexy (to change the NAC position) during subglandular augmentation of different grades of ptosed atrophic breasts. And to determine the stability of the results after one year as regards the distance of the nipple to both SSN and IMF.

## PATIENTS AND METHODS

Between December 2006 and December 2009, thirty female patients underwent augmentation mammoplasty with or without lifting of the NAC. The average age of the patients was 35 years (range 25-45) years. All the patients presented with mammary atrophy and/or ptosis. Breast ptosis was graded according to the Regnault's classification (Table 1).

#### *Measurements and selection of the surgical technique:*

First mark the following important landmarks; inframammary crease (IMF), suprasternal notch (SSN), mid-clavicular point, width of mammary gland base, distance from nipple to IMF, distance from nipple to SSN. The new location of NAC is located on the mid-clavicular line taking into consideration its proper distance from SSN.

Then the surgical procedure to be employed is selected depending mainly on the distance from nipple to IMF (distance of ptosis) and the distance to which NAC to be lifted.

#### *Patients were classified into 3 groups:*

- *Group I:* 10 cases (33%) had mild ptosis (grade I) or cases with grade II breast ptosis presented with (ptosis of the NAC distance to the inframammary fold <3cm).
- *Group II:* 10 cases (33%) had moderate (grade II) breast ptosis presented with (ptosis of the NAC distance to the inframammary fold >3cm).
- *Group III:* The last 10 cases (33%) were of grade III ptosis.

Group I, patients were managed with only subglandular breast augmentation. While Group II, Patients were managed with subglandular breast augmentation, with elevation of the NAC using periareolar or vertical scar mastopexy. Group III, patients were managed with subglandular breast augmentation, with mastopexy using vertical scar or inverted-T-shaped scar mastopexy (Table 2). All cases were managed with Round textured silicone gel implants, with implant volume ranged between 200-335cc.

#### *Preoperative marking:*

In group I: The IMF is marked then the site of infra mammary incision or the half periareolar incision is marked and margins of the implant pocket are drawn according to the gland base. The pocket should be 1-2cm larger than the implant base.

In group II & III: The most important step that needs much experience is to determine the size of the prosthesis that will be used after doing the mastopexy to detect the proper size of skin excision to avoid the excessive skin removal. The mastopexy markings are determined as regards the IMF, new NAC site, the size of the areola, the medial and lateral margins of skin envelope resection. Then determine the base of the future breast and choose the size according to the breast base. Medial and lateral pillars creation by incising the breast parenchyma .after finishing the mastopexy the implant is placed in a subglandular position keeping in mind that the pocket is tested for adequacy. If the skin was excessive in grade III ptosis the scar is designed to be inverted T-shaped scar (usually Intraoperative decision) if it is noticed that the vertical scar shows much corrugations (and its length after closure is more than 8cm).

#### *Preoperative preparation:*

Preoperative photography of the patients before and after markings in the famous breast positions anterior, lateral and oblique view, followed by administration of intravenous antibiotics.

#### *Operative techniques:*

*In group I:* With the patient under general anaesthesia, lower half periareolar incision or inframammary incision is made around 8cm centered on the breast meridian, dissection of subglandular pocket performed under direct vision using electrocautery unit, with attention paid to meticulous hemostasis. The medial aspect of the pocket is developed as much as desired before the lateral aspect is enlarged. The latter generally is performed conservatively to prevent lateralization of the implant. The lateral dissection should not exceed the anterior axillary line. Medial dissection should be stopped at 1cm from the midline of the chest wall. The implant is bathed in povidone-iodine solution and also the subglandular pocket was irrigated with the same solution, then the implant is inserted in the pocket. Suction drains were used in some cases according to the surgeon's preference in the case. The same is repeated in the other side followed by closure of the wounds.

*In group II:* When the vertical scar for augmentation mastopexy is chosen, with the patient under general anaesthesia, the de-epithelialization is completed first, then the skin over the borders of the medial and lateral pillars is dissected, the breast tissue between the pillars is either incised or resected. Then the areola is sutured completely to its new site. Through the resected or incised median part of the breast the dissection of subglandular

pocket performed under direct vision using electrocautery, with attention paid to meticulous hemostasis as seen in (Fig. 1). The implant is bathed in povidone-iodine solution and also the subglandular pocket was irrigated with the same solution, then the implant is inserted in the pocket (Fig. 1C). Suction drains were used in some cases according to the surgeon's preference in the case. The same is repeated in the other side followed by closure of the wounds.

In cases of periareolar mastopexy the de-epithelialization is done first then the skin of the lower half of the breast is dissected till reaching the IMF, then radial incision in midline of the breast parenchyma is made to enter the subglandular pocket which is dissected and perfectly hemostazed. After implant insertion the periareolar wound should be closed with deep intradermal purse-string using non-absorbable polyfilamentous Ethibond 2/0 suture. Then 4/0 interrupted absorbable before the last layer of 5/0 prolene. As seen in (Fig. 2).

*In group III:* The same as Group II but the skin de-epithelialization is more, the skin dissection is more and the length of the vertical scar to be closed is larger that it may necessitate skin closure in inverted T-shaped scar.

#### *Postoperative care:*

Analgesics and antibiotics were given; early mobilization and patients free of complications were discharged home 24 hours after the operation. Outpatient follow up visits were planned for postoperative days 3,7,14, 30 and after 3 months, 6 months then every year. Postoperative photography of the patients was done and patients were followed postoperatively for a period of 1-2 years (average 18 months). During each visit two important measurements are noted and registered; the nipple to SSN distance and nipple to IMF distance. These are compared to the preoperative values after 1 year of surgery.

## RESULTS

A total of 30 cases with breast atrophy and ptosis underwent surgery. Group 1 cases, 10 cases (33%) with grade I breast ptosis and grade II breast ptosis with NAC <3cm from inframammary fold were managed with only subglandular breast augmentation. The results were excellent with very high patients' satisfaction and hidden little scarring specially the half periareolar incision. The nipple to SSN distance is decreased by 1-2cm if compared to the preoperative values before augmentation

mammoplasty (nipple is elevated by 1-2cm. After augmentation). While the nipple to IMF is fixed during follow-up (Table 4). With one case that developed hematoma because of non functioning drain, for which reoperation was done to change the drain in the 2<sup>nd</sup> post operative day. Results are shown in (Figs. 3,4).

Group II cases, 10 cases (33 %) with grade II breast ptosis with NAC >3cm from inframammary fold were managed with subglandular breast augmentation and mastopexy. The mastopexy done was either periareolar or vertical scar. The high profile textured implants were used. The results were excellent with very high patients' satisfaction and only the periareolar or vertical scars are shown. The nipple to IMF distance remained constant in cases of periareolar mastopexy but it elongates by 2-4cm. In cases of vertical scar mastopexy. We noticed that nipple distance from SSN remained constant in either techniques (Table 4). With no major complications, only superficial wound infection in one case which was treated conservatively. Results are shown in (Figs. 5,6).

Group III cases, 10 cases (33%) with grade III breast ptosis were managed with subglandular breast augmentation with mastopexy vertical scar or short T-shaped scar mastopexy. As in (Table 4) The nipple to SSN distance remained constant in either techniques, but the nipple to IMF distance elongates more in vertical scar augmentation mastopexy (2-5cm.) than in inverted T-scar augmentation mastopexy (1-2cm). Results are shown in (Figs. 7,8).

There were no incidences of deaths, myocardial infarction, pulmonary embolism or deep vein thrombosis in any patient. The most significant complications were seen in three cases (10%), one case with hematoma (diagnosed by ultrasonography and surgically evacuated) and one case with superficial wound infection which was managed conservatively, and one case with bottoming of the augmented breasts with vertical scar mastopexy which we believe that the skin was excess and inverted T-shaped scar should have been performed in that case (Table 3). Patient satisfaction occurred in 27 cases (97%).

Table (1): Regnault's classification for breast ptosis.

Severity	Description
Minor ptosis (Grade I)	Nipple at inframammary fold
Moderate ptosis (Grade II)	Nipple below inframammary fold, but above lower breast contour
Severe ptosis (Grade III)	Nipple below inframammary fold, and at lower breast contour
Glandular ptosis	Nipple above inframammary fold, but breast hangs below fold
Pseudoptosis	Nipple above inframammary fold, but breast severely hypoplastic and hangs below fold

(From Brink R.: Plast. Reconstr. Surg., 86 (4):715-719, 1990.)

Table (2): Methods of management used in 30 cases with mammary atrophy and ptosis.

Grade of breast ptosis	Number of patients	% of total	Method of management	
Grade I breast ptosis + Grade II breast ptosis (with NAC <3cm from inframammary fold)	10	33%	Breast augmentation only	Group I
Grade II breast ptosis (with NAC >3cm from inframammary fold)	10	33%	Breast augmentation, with mastopexy periareolar or vertical scar.	Group II
Grade III breast ptosis	10	33%	Breast augmentation, with vertical scar or short T-shaped scar mastopexy	Group III

Fig. (1): The use of vertical scar for augmentation mastopexy.



(A): De-epithelialization and dissection of skin down to IMF.



(B): Elevation of parenchyma at IMF then subglandular pocket is created with perfect hemostasis.



(C): Implant insertion.

Fig. (2): Periareolar scar for augmentation mastopexy.



(A): De-epithelialization and dissection of skin, subglandular pocket is created with perfect hemostasis.

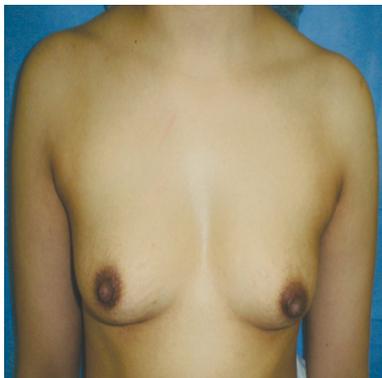


(B): Purse-string running deep intradermal non-absorbable suture.



(C): Interrupted 4/0 absorbable suturing.

Fig. (3): 22 years old Female patient with mammary atrophy and grade I breast ptosis.



(A)



(B)



(C)

Fig. (3-A,B,C): Preoperative views (anterior, oblique and lateral).



Fig. (3-D,E,F): Post operative AP, oblique and lat. views after breast augmentation with 290cc round implants.

Fig. (4): Female patient with mammary atrophy and grade II breast ptosis (NAC ptosis <3cm from inframammary fold).

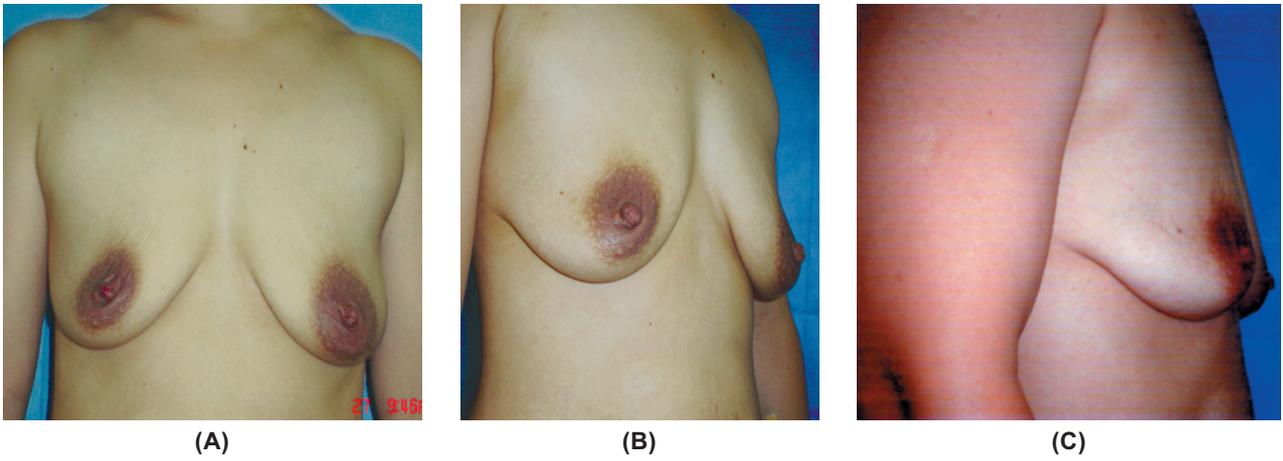


Fig. (4-A,B,C): Preoperative views (anterior, oblique and lateral).

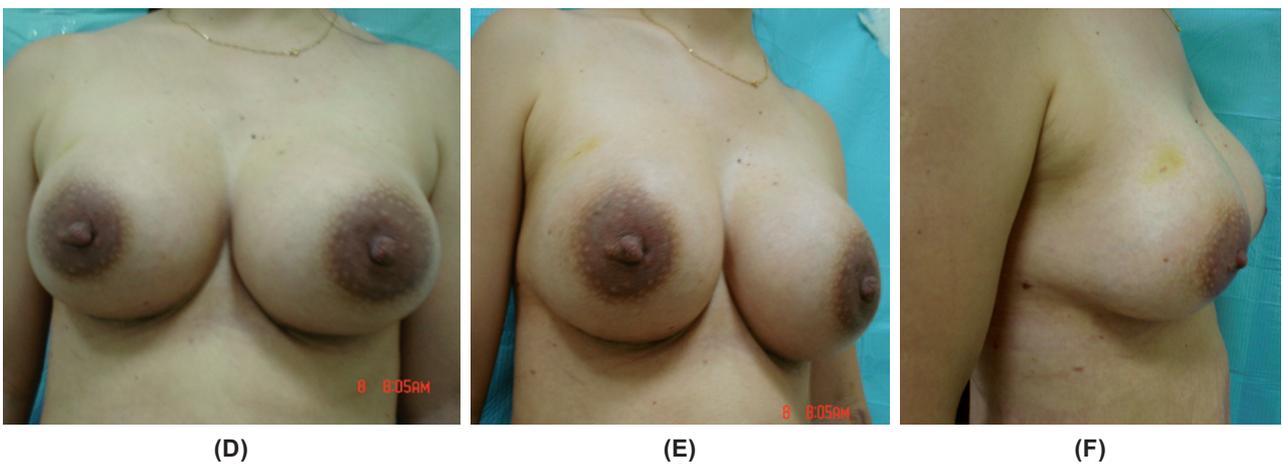


Fig. (4-D,E,F): Post operative anterior, oblique and lateral views after breast augmentation with 335cc round implants.

Fig. (5): 28 years old female with grade III ptosis augmentation with 300cc textured round high profile subglandular implant combined with vertical scar mastopexy.

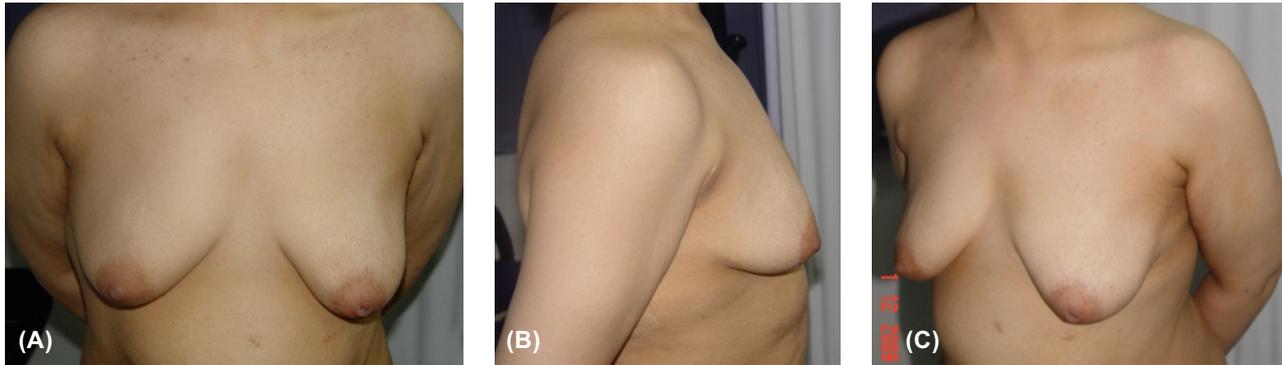


Fig. (5-A,B,C): Preoperative views anterior and lateral and oblique showing marked ptosis.

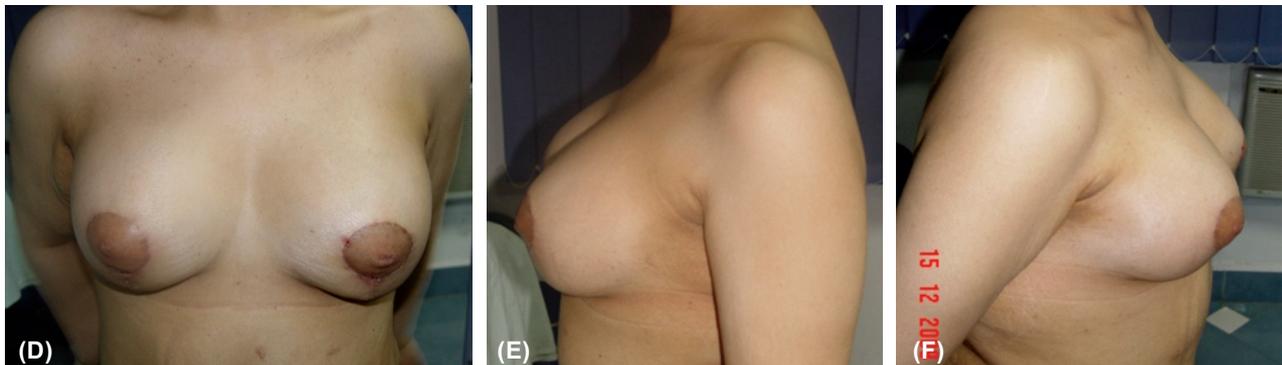


Fig. (5-D,E,F): Early result with vertical mastopexy anterior, lateral and oblique views.

Fig. (6): 29 years old female with grade II ptosis of the right side and grade I ptosis of the left side, treated by augmentation mastopexy with subglandular 300cc rounded textured implant and periareolar mastopexy.



Fig. (6-A,B,C): Preoperative views anterior, left lateral & right lateral showing grade II (right side) and grade I ptosis (left side) with the marking for both augmentation and superior periareolar skin resection.

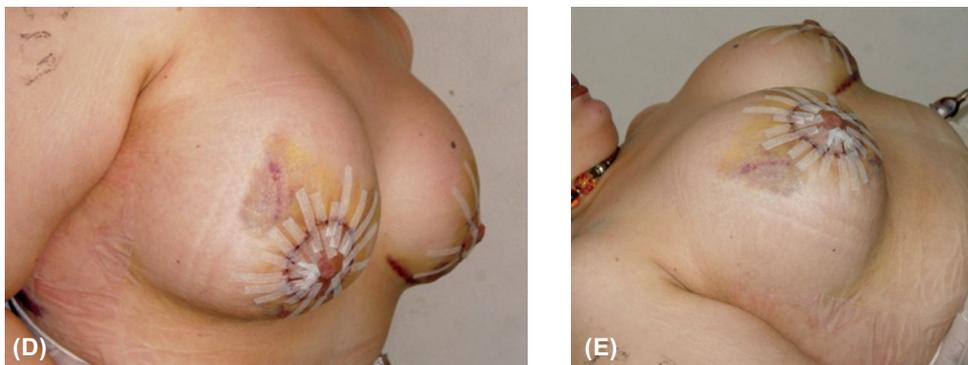


Fig. (6-D,E): Early post operative result with steri-strips shown around the periareolar scar.

Fig. (7): 34 years old female with grade II ptosis with large sized areola, treated by augmentation mastopexy with subglandular 275 rounded textured implant and T-shaped scar mastopexy.

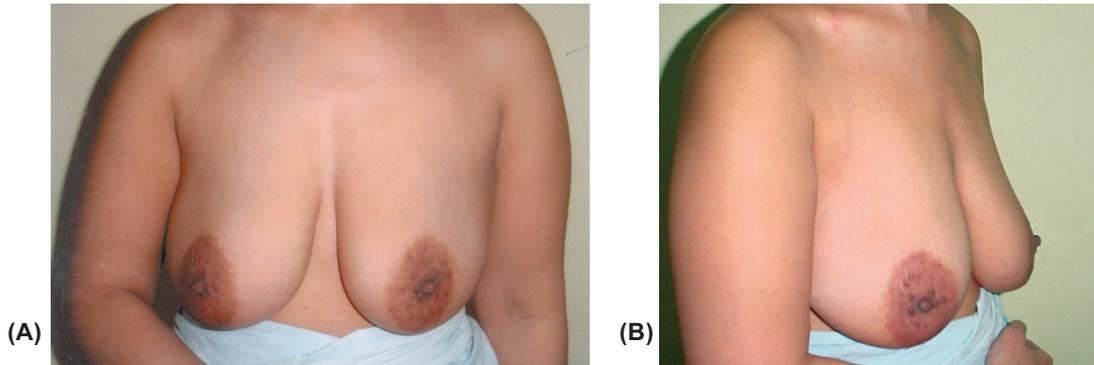


Fig. (7-A,B): Preoperative views anterior and oblique showing size of areola and grade II ptosis.

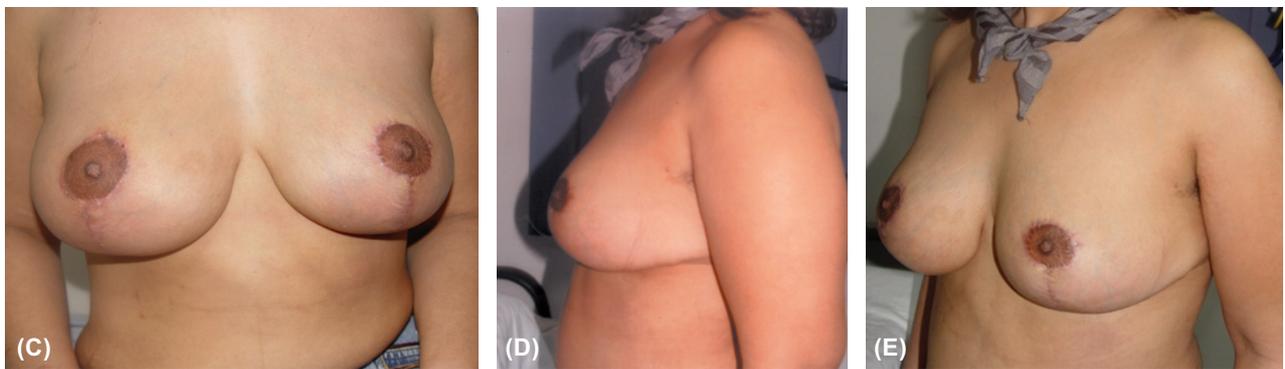


Fig. (7-C,D,E): 5 months postoperative showing the size and site NAC in anterior, lateral & oblique views.

Fig. (8): 41 years old female with grade III ptosis after massive weight loss, treated by augmentation mastopexy with subglandular 200 rounded textured implant and vertical scar mastopexy.

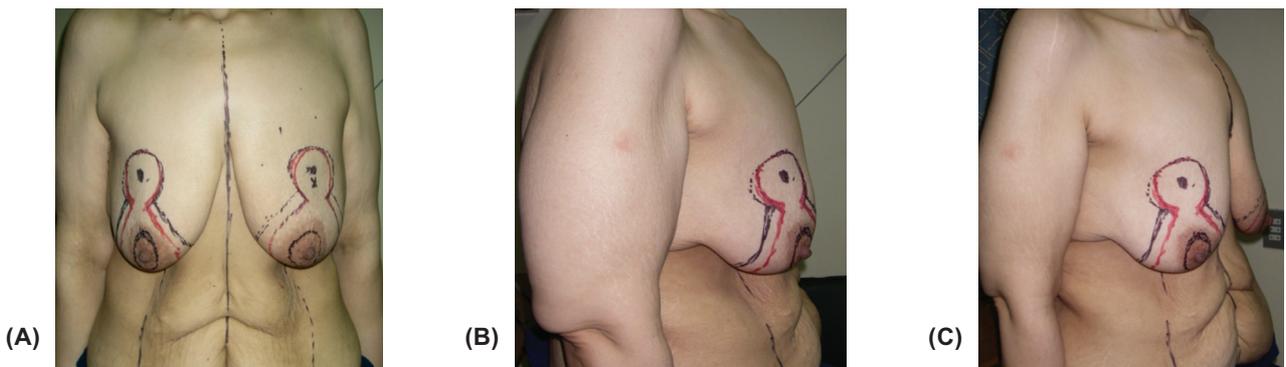


Fig. (8-A,B,C): Preoperative views anterior, lateral and oblique showing marked breast ptosis grade III.

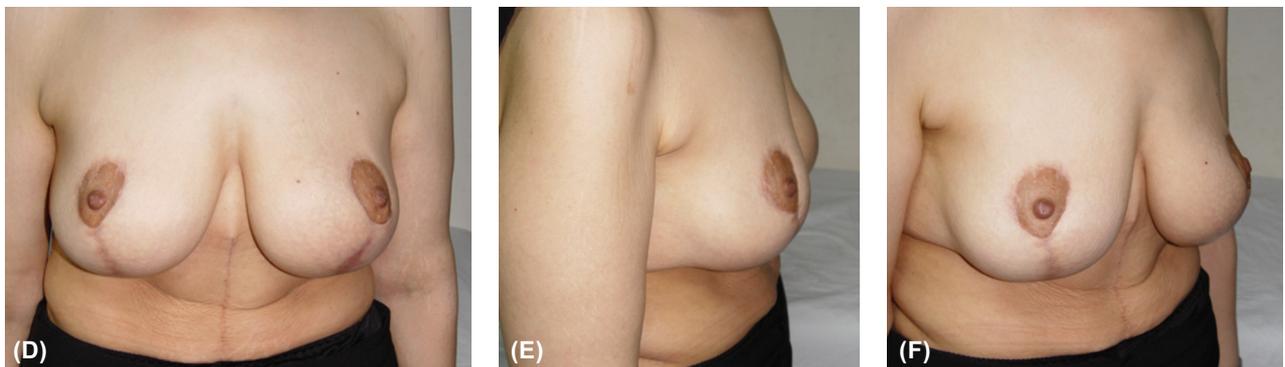


Fig. (8-D,E,F): Post 12 months showing the size and site NAC in anterior, lateral and oblique views. Elongated nipple to IMF distance is noted with constant nipple to SSN distance if compared to early post operative results.

Table (3): Incidence of complications after surgical management.

Complication	Number	%
<i>A- Systemic complications:</i>		
Death	0	0
Myocardial infarction	0	0
Pulmonary embolism	0	0
Deep vein thrombosis	0	0
<i>B- Tissue related complications:</i>		
Hematoma	1	3.3
Infection	1	3.3
Loss of nipple sensation	0	0
Breast & Areolar asymmetry	0	0
Areolar or nipple loss	0	0
Partial areolar depigmentation	0	0
Poor scarring	0	0
Recurrent ptosis	0	0
Capsular contracture	1	3.3
<i>C- Implant related complications:</i>		
Implant rupture	0	0
Implant palpability	0	0
Implant malposition	0	0
<b>Total of complications</b>	<b>3</b>	<b>10</b>

Table (4): Changes in the distance of nipple to both SSN and IMF in the different groups of patients (One year postoperatively compared to immediate postoperative result).

	Nipple to SSN distance	Nipple to IMF distance
Group I	Decreased by 1-2cm if compared to the pre-operative values before augmentation mammoplasty (nipple is elevated by 1-2cm. after augmentation). Then remained significantly unchanged throughout follow-up period.	Is unchanged throughout the postoperative period.
Group II	Remained constant in either techniques periareolar mastopexy or vertical scar mastopexy.	Remained constant in cases of periareolar mastopexy but it elongates by 2-4cm. in cases of vertical scar mastopexy.
Group III	Remained constant in either techniques, vertical scar augmentation mastopexy or inverted T-scar augmentation mastopexy.	Elongates more in vertical scar augmentation mastopexy (2-5 cm.) than in inverted T-scar augmentation mastopexy (1-2cm).

## DISCUSSION

The presence of ptosis and mammary atrophy in a single patient is a common condition. The occurrence of two pathologies has increased lately because of the changes in the aesthetic canons of the female figure, with thinner figure more dominating. Weight loss can lead to a loss in breast volume, with subsequent ptosis. The condition is even more marked if the patient had multiple pregnancies, or if the breasts have increased significantly in size during lactation. Despite the increase in this pathology, reports of dual treatment at the same surgical time are limited. More important is the fact that there is no general agreement of how it should be treated, or whether simultaneous surgical treatment is recommended [1].

Although it is understandable that most patients would prefer a combined procedure, recent literature raises the question of whether it may be better to stage the procedures [6]. One stage breast augmentation with mastopexy is certainly a difficult operation with numerous potential challenges, and it is understandable that some say “surgeon beware” [7]. However, the procedure is well described by these same authors [8]. The topic is further clouded by others who say that “simultaneous timing of these operations does not add any additional risks” [9].

The difficulty in perfectly positioning the nipple in combined augmentation/mastopexy is one of the reasons for a higher revision rate with this operation as compared with primary augmentation. What distinguishes augmentation/mastopexy from isolated breast augmentations is that even though it is a related elective cosmetic breast procedure, it carries with it risks that are not in play for a simple augmentation procedure. The unique risks include loss of the nipple due to vascular compromise and malposition of the nipple due to overcorrection or under correction of ptosis. Other risks include, implant exposure for extrusion, infection, visible or poor scars, and loss of nipple sensibility. For all these reasons, this operation must be undertaken with a heightened level of preparation, planning, and caution, particularly with regard to siting the nipple, preserving blood supply and achieving secure and appropriately snug closure of the breast [10].

Camarena and Macias [1], reported management of 384 female patients with breast augmentation and mastopexy, and they managed patients with nipple-areola complex (NAC) ptosis less than 3cm

by combined breast augmentation with either elevation of the NAC or periareolar mastopexy, while patients with NAC ptosis >3cm were managed with breast augmentation combined with inverted T mastopexy.

Baran et al., [11], reported that although during periareolar mastopexy or reduction mammoplasty regular subcuticular dermal sutures may control the enlargement of nipple-areola complexes initially, the periareolar scar becomes hypertrophic and areola spreading occurs to some extent.

In this study, 30 patients with mammary atrophy and ptosis were managed. 10 cases (33%) with Grade I breast ptosis and grade II breast ptosis with NAC distance <3cm from inframammary fold, were managed with only breast augmentation. No positioning of NAC here but still we noticed that the nipple is elevated by 1-2cm than its original position if high profile large implants were used by the effect of subglandular augmentation and re-draping of breast tissue and the skin over the implant. The nipple to SSN distance is decreased by 1-2cm if compared to the preoperative values before augmentation mammoplasty (nipple is elevated by 1-2cm. after augmentation). While the nipple to IMF is fixed during follow-up.

10 cases (33%) with Grade II breast ptosis and NAC distance >3cm from inframammary fold), were managed with breast augmentation and either periareolar or vertical scar mastopexy. The nipple to IMF distance remained constant in cases of periareolar mastopexy but it elongates by 2-4cm. in cases of vertical scar mastopexy. We noticed that nipple distance from SSN remained constant in either techniques.

In last 10 cases with grade III breast ptosis were managed with breast augmentation and either vertical scar or T-shaped scar mastopexy in all cases The nipple to SSN distance remained constant in either techniques, but the nipple to IMF distance elongates more in vertical scar augmentation mastopexy (2-5cm) than in inverted T-scar augmentation mastopexy(1-2cm). This could be explained by the fact that the yielding of the vertical scar under the weight of the breast implant is more than the inverted T-shaped scar if the vertical limb is 6cm short from the start.

Lindsey [4], reported that in cases of grade II ptosis, undesirable upper pole fullness and low nipple position are common and that some techniques dealing with these undesirable results include the use of anatomic implants, however their efficacy has been questioned, particularly in view

of a recent report by Hamas [12] and he reported that he had similar results with the use of anatomic and round implants. Large (>350ml) implants have also been advocated for treatment of breast ptosis as they provide some lift for the ptotic breast but excessively large implants compromise the soft tissues and a source of delayed patient morbidity.

Sevin et al. [13], reported that deflation of saline filled implants occurs sooner or later and the rate of this complication ranges from 0.5% to 16% and they used soft cohesive silicone gel implants with satisfactory results, also they preferred textured implants because they have caused less capsular contracture.

Hidalgo [14], reported that subpectoral implant placement is indicated in most cases of primary breast augmentation except for patients with normal body habitus (not excessively thin) who present with significant postpartum atrophy and exhibit loose breast skin and glandular ptosis. Subglandular augmentation in these individuals more effectively restores shape without the risk of visible implant shape. Subpectoral implant placement in these individuals may fail to correct ptosis completely, which may result in an abnormal double breast contour.

In this study, in all our cases round implants were used. The implant volume ranged between 200-335cc. subglandular textured silicone gel implants were used as all patients suffered from mammary atrophy in addition to ptosis. We found that if the periareolar technique is going to be used the implant is placed through the areola, on the other hand if the vertical scar is used the breast tissue of median lower part between de-epithelialized skin is dissected till IMF then elevated to enter subglandular space, but if the inverted T technique is used the implant is inserted through inframammary crease.

Araco et al. [15], reported 3002 cases managed with primary breast augmentation with the result of hematomas in 46 cases (1.5%), infections in 33 cases (1.1%), breast asymmetries in 23 cases (0.87), rippling in 21 cases (0.7%), capsular contracture which appeared 5 years after surgery in 14 cases (0.5%), with overall incidence of complications (4.6%), however few patients required reoperation (1.6%) and the overall satisfaction rate was acceptable.

Camarena and Macias [1], reported 384 cases with breast augmentation combined with mastopexy with patient satisfaction rate 89% among the patients who underwent lifting of the NAC, 82%

among those with periareolar pexy and 92% among patients with inverted Tpexy.

In this study, the complication rate was (10%) which were, one case (3.3%) with hematoma, one case (3.3%) with superficial wound infection which was managed conservatively, and one case (3.3%) with recurrent ptosis and bottoming out of the augmented breasts with vertical scar mastopexy which we believe that the skin was excess and inverted T-shaped scar should have been performed in that case.

#### Conclusion:

Patients with grade I breast ptosis and grade II breast ptosis with NAC distance <3cm from inframammary fold can be managed by subglandular breast augmentation without mastopexy as the minor ptosis is stretched over the proper sized high profile implant, leading to masking of the deformity (nipple is elevated by 1-2cm). However, one stage subglandular breast augmentation with mastopexy is reserved for cases with Grade II breast ptosis and NAC distance >3cm from inframammary fold), and grade III breast ptosis. The nipple to SSN distance is usually constant but the nipple to IMF distance differ according to the mastopexy technique used.

The choice of the technique of mastopexy to be employed whether periareolar, vertical scar or even inverted T-shaped scar depends mainly on the NAC descent, and the skin excess. The combination of augmentation and mastopexy is a must in those patients, with very high patient satisfaction and little complications.

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